

1/8

Name: at	Len: 162	Check: 5339	Weight: 1.00
Name: bn	Len: 162	Check: 8426	Weight: 1.00
Name: bv	Len: 162	Check: 6644	Weight: 1.00
Name: gh	Len: 162	Check: 7625	Weight: 1.00
Name: le	Len: 162	Check: 951	Weight: 1.00
Name: cg	Len: 162	Check: 1715	Weight: 1.00

//

```

1                                     50
at MGEIGFTEKQ EALVKESWEI LKQDIPKYSI HFFSQILEIA PAAKGLFSFL
bn mgeivftekq ealvkeswei lkqdipkysl hffsqileia paakdmfsfl
bv ---MTFTEKD EALVKESWDI MKQNIPEYSL RFFSIILEIA PAAKNMFSFL
gh ---mgftekq eglvkeswev lkqdiphssl rffslileia pgaknmfsfl
le ---mgftdkq ealvrdswef mkqdipqlsl rffslileia pvaknmfsfl
cg ---maltekq eallkqswev lkqnipahsl rlfalileaa peskyvfsfl

```

```

51                                     100
at RDSDEVPHNN PKLKAHAVKV FKMTCEIAIQ LREEGKVVVA DDTLQYLGSI
bn rdtdevphnn pklkahavkv fkmtcetaiq lrekgvvva ddtlqylgsv
bv RDSEEVQNN PKLKAHAIV FKMTCESAIQ LREKGEVVVG ETTLKYLGA
gh reseepqnn pklkahavkv fkmtcesaiq lrekgevvva ddtlkylgtv
le kdsdelpenn pklrahavkv fkmtcesaiq lrekgevvvg ettlkylgsi
cg kdsneipenn pklkahaavi fkticesate lrqkghavwd nntlkrlgsi

```

```

101                                    150
at HLKSGVIDPH FEVVKALR TLKEGLG.EK YNEEVGAW S QAYDHLALAI
bn hfksgvidph fevvkealvr tlkeglg.ek yneevegaws kaydhlalai
bv HLKNGVIDPH FEVVKQALLR TIEEASG.DK WSEELKCAWS VAYDHLAAAI
gh hvksgvkdph fevvkeallr tieeaigeeek wneemknawg eaydqlaeai
le hlqkrvadph fevvkeallr tvkeatg.nk wkdemkeaws eaydqlasai
cg hlnkkitdph fevmkgallg tikeai.ken wsdemgcawt eaynqlvati

```

```

151      162
at KIEMKQEE~ ~
bn kaemkqedsq kp
bv KAEMKE*~ ~
gh kaemknhhde ta
le kaemhaeaaa ~
cg kaemke~ ~

```

FIGURE 1

2/8

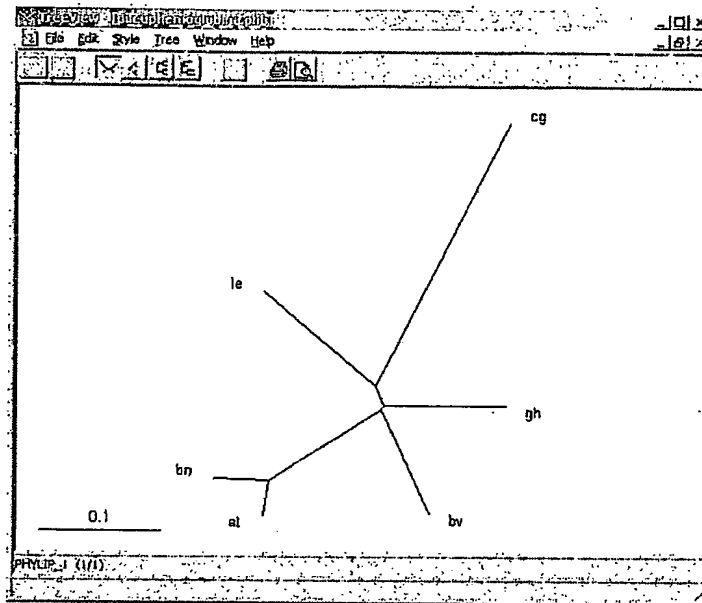


FIGURE 1 (continued)

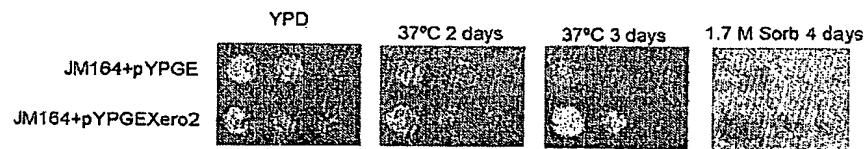


FIGURE 2

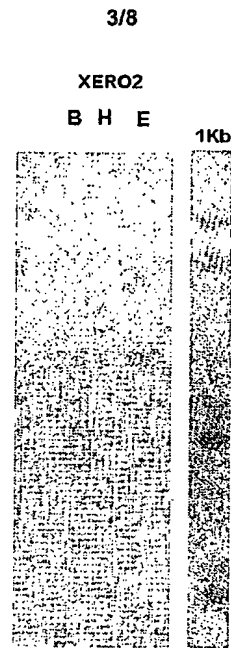


FIGURE 3

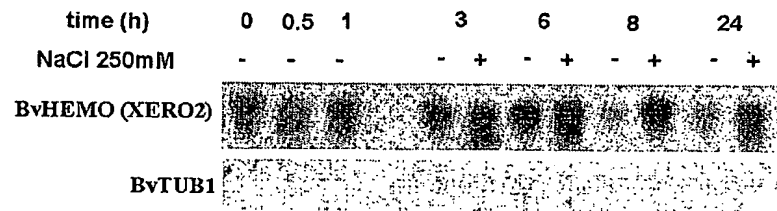


FIGURE 4

4/8

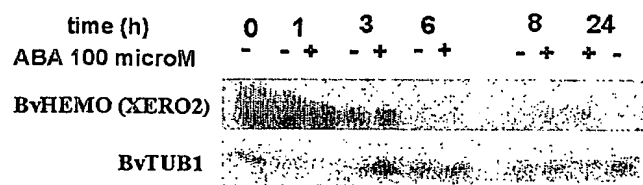


FIGURE 5

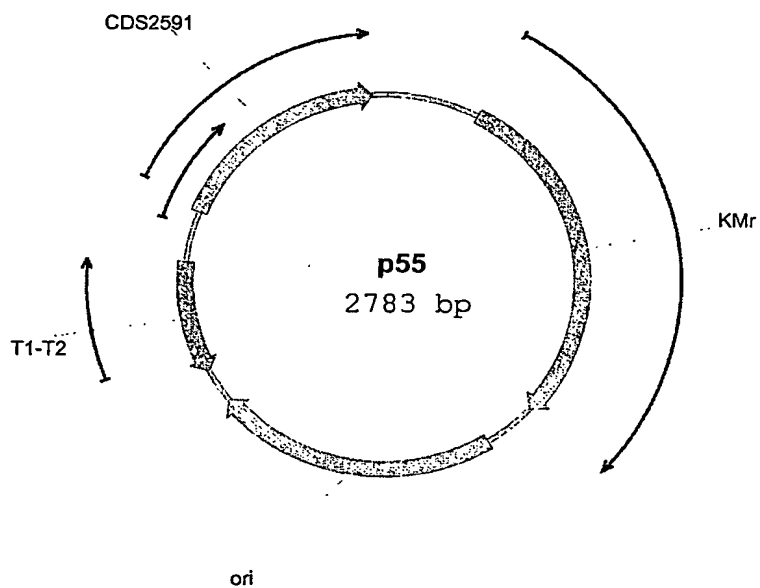


FIGURE 6

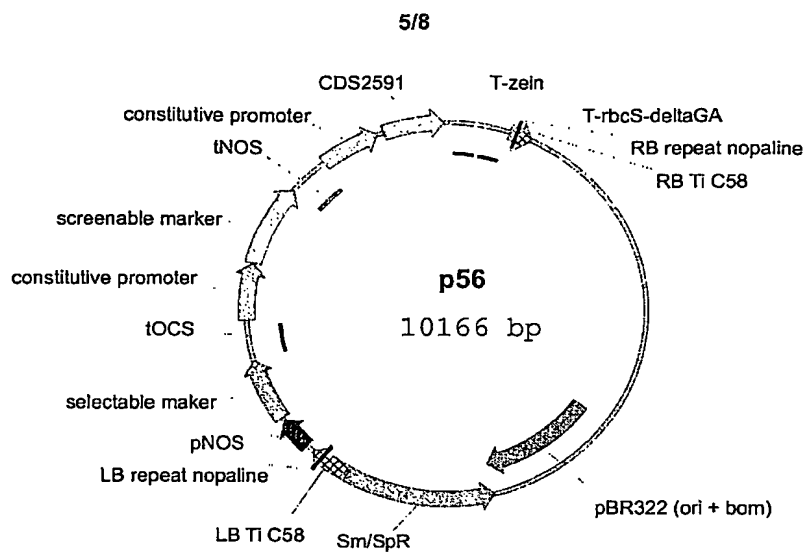


FIGURE 7

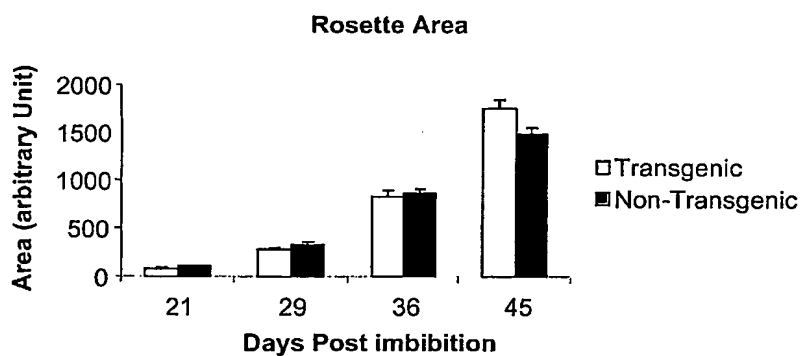


FIGURE 8

6/8



FIGURE 9

7/8

## SEQ ID NO 1: Xero2 cDNA

tacaaaccacaaatttaagctattaatacacactttctctgtcattttttgtgttccaattta  
 gtttcttttcttttaattaaaaacaaaactatgacttttacagagaaagatgaagcttttgt  
 aaaagaatcatgggataataatgaagcaaaatcccagaatacagccttcggtttttctcca  
 taatattggaaattgctccagcagccaaaaatattgtctcatttttaagggattcagaggaa  
 gttccacagaataatccaagctgaaagctcatgcaatcaagggttttaaaatgacatgtga  
 atcagccattcaacttcgagaaaaaggtgaagtgggtgtaggagagactacccttaaatatt  
 tgggagctatccatttgaagaatggagtgattgatccccattttgagggttgtaaacaaagca  
 ttattgagaacatagaagaagcaagtgggtgacaaatggagtgaagaattgaaatgtgcttg  
 gagtgttgctatgatcacttagctgcagccatcaaagctgagatgaaggaataggtagctt  
 agttctcagtcgcaaaaagtattactctaaaaatattgaataaatattcttattgttttga  
 ggggaaattattgttattgttgattctgactcacttatttaccgagtgacttgatatgggtg  
 ctttttcttgcttattattgatttagcaagaaggaaatcaaattcataattattgggttaac  
 catgtaatagtgcataattaattgtgataaaaccttggtgatatatgtaccttattgcaaatt  
 taaaaataatattccctcggctcttcattttaaaaaaaaaaaaaaaaaaaaaaaaaaaaa

## SEQ ID NO 2: Xero2 deduced protein sequence

MTFTEKDEALVKESWDIMKQNIPEYSLRFFSIILEIAPAAKNMFSFLRDSEVPQNPKLKA  
 HAIKVFMTCESAIQLREKGEVVGETTLKYLGAHILKNGVIDPHFEVVKQALLRTIEEASG  
 DKWSEELKCAWSVAYDHLAAAIKAEMKE

SEQ ID NO3: *Arabidopsis thaliana* class 2 non-symbiotic haemoglobin (GLB2), cDNA

attgaataccatatatatagatacacagacatatataaacacacaaatattcgtgtttttt  
 caaactgtgagagaaaaaagagagaaagagatgggagagattgggtttacagagaagca  
 agaagctttgggtgaaggaatcgtgggagatactgaaacaagacatccccaaatcacgccttc  
 actcttctcacagatactggagatagcaccagcagcaaaaggcttggtctcttctcctaaga  
 gactcagatgaagtcctcacacaatcctaaactcaaagctcatgctgttaaagtcttcaa  
 gatgacatgtgaaacagctatacagctgagggaggaaggaaagggtggtagtggctgacacaa  
 cctccaatatttaggctcaattcatctcaaaagcggcgttattgacctcacttcgaggtg  
 gtgaaagaagctttgctaaggacattgaaagaggggttgggggagaaatacaatgaagaagt  
 ggaagggtgcttggtctcaagcttatgatcacttggcttttagccatcaagaccgagatgaaac  
 aagaagagtcataaaacctattgatcatttgggtatcgcatacatgaatctattccacata  
 catgatacacatatacgtgtttctgtgtgtactatgttgctctctgactttctacagttc  
 actattttaattataaagaaggatcttgtgctatcattagggagatacgtgatactgtagtt  
 cttcttgaaattgttattcgtgagaaatcatcgtgttgaaagtatttatttccacaagatgg  
 atgttaacgtggggtcattttacaatcattctacaataattttacttctc

SEQ ID NO 4: *Arabidopsis thaliana* class 2 non-symbiotic haemoglobin (GLB2), deduced protein sequence

MGEIGFTEKQEALVKESWEILKQDIPKYSLHFFSQILEIAPAAKGLFSFLRDSDEVPHNNPK  
 LKAHAVKVFMTCEAIQLREEGKVVDITLQYLSIHLKSGVIDPHFEVVKQALLRTLKE  
 GLGEKYNEEVEGAWSQAYDHLALAIKTEMKQES

FIGURE 10

8/8

SEQ ID NO 17: Brassica napus class 2 non-symbiotic hemoglobin (GLB2) cDNA sequence

atgggagagattgtgtttacggagaagcaagaagctttggtgaaggagtcttgggagatact  
aaagcaagatatcccaaatacagtcctcacttctctcacagatactggagatagcaccag  
cagcaaaggacatgttctctttcctaagagacacagatgaagtcctcataacaatcctaaa  
ctcaaagctcatgctgttaaagcttcaagatgacatgtgagacagcaatacagctgagggga  
gaaaggaaaaggtagtgtgtggctgacacaacctccaatacttgggctctgttcatttcaaga  
gcggtgttcttgatcctcactttgaggtggtgaaagaggcattggtgaggacactgaaagaa  
gggttgggggagaagtacaatgaagaagtgaaggagcttggccaaggcttatgatcactt  
ggctttagccatttaaggccgagatgaacaagaagactcacaaaaaccctaa

SEQ ID NO 18: Brassica napus class 2 non-symbiotic hemoglobin (GLB2), deduced protein sequence

MGEIVFTEKQEALVKESWEILKQDIPKYSLEHFFSQILEIAPAAKDMFSFLRDTDEVPHNNPK  
LKAHAVKVKMTCEITAIQLREKGVVADTTLQYLGSVHFKSGVLDPHFEVVKALVRTLKE  
GLGEKYNEEVEGAWSKAYDHLALAIKAEKQEDSQKP

SEQ ID NO 19: primer prm05458

ggggaccactttgtacaagaaagctgggtcaaatgatcaatagggtttta

SEQ ID NO 20: primer prm06122

ggggacaagtttgtacaaaaagcaggcttaaacagtgagagaaaaagaaagagaga

SEQ ID NO 21: primer prm05447

ggggacaagtttgtacaaaaagcaggcttaaacatggctctcgtggaggata

SEQ ID NO 22: primer prm05448

ggggaccactttgtacaagaaagctgggtgatcatggaggtggagcag

SEQ ID NO 23: primer prm06021

ggggacaagtttgtacaaaaagcaggcttaaacatgacttttacagagaaagatgaagct  
tt

SEQ ID NO 24: primer prm06022

ggggaccactttgtacaagaaagctgggtctaagctacctatctctcatctcagc

FIGURE 10 (continued)